

CRAIG S. HARRISON 1900 K STREET, N.W. WASHINGTON, D.C. 20006-1109 TEL 202 • 778-2240

FAX 202 • 778 • 2201 CHARRISON@HUNTON.COM

FILE NO. 99997.023335

December 14, 2005

Dale Hall, Director U.S. Fish & Wildlife Service 1849 C Street, N.W. Washington, DC 20240

Robert R. Treanor, Executive Director California Fish and Game Commission Box 944209 Sacramento, CA 94244-2090

Re: Petition to Delist the California Brown Pelican From the Listed of Endangered or Threatened Species Under the Endangered Species Act

Dear Director Hall and Executive Director Treanor:

On behalf of the Endangered Species Recovery Council (ESRC), we submit this formal petition to remove (delist) the California Brown Pelican (*Pelecanus occidentalis californicus*) from the list of species covered by the federal Endangered Species Act ("ESA") pursuant to 16 U.S.C. § 1533(c) and from the list of species covered by the California Endangered Species Act in the California Code of Regulations, Title 14, § 670.5. The evidence clearly indicates that this subspecies should be removed entirely (delisted) from both federal and state lists and should not be merely down-listed from endangered to threatened. According to the U.S. Fish and Wildlife Service (USFWS), "populations of brown pelicans in the west coast of the U.S. have substantially increased during the past two decades." On the basis of evidence amassed during recent years, no reasonable assessment of the status of this subspecies would lead to a conclusion that it is currently in danger of extinction, or that it is likely to be in danger of extinction within the foreseeable future. We request that the USFWS make a determination as to whether this action may be warranted within 90 days by publishing such a determination in the Federal Register² and acknowledge, in writing, receipt of this petition within 30 days.³ We believe that

¹ http://www.fws.gov/cno/arcata/es/birds/b_pelican.html (last viewed November 12, 2005).

² ESA § 4(b)(3)(A); 50 C.F.R. § 424.14(b)(1).

³ 50 C.F.R. § 424.14(a).

this petition contains sufficient information to compel USFWS to propose delisting the California Brown Pelican immediately and to warrant a status assessment of Brown Pelicans in Louisiana and Texas.

The Brown Pelican is found throughout temperate and tropical regions of the Americas, along both Atlantic and Pacific coasts. While six subspecies (three in North America and three in South America) have been recognized, "some exchange occurs among colonies by the recruitment of new breeders." Only the California subspecies and the populations breeding in Louisiana and Texas are listed under the ESA. The California Brown Pelican breeds primarily on coastal islands of southern California and western Mexico, including the Gulf of California. We believe that the restored population and the viability of this subspecies, as detailed below, represents a success, under the ESA, of the management efforts of both the USFWS and the State of California Department of Fish and Game. This success should be recognized by removing the California subspecies from the endangered species list.

I. The Endangered Species Recovery Council

The ESRC is a global, non-profit task force of scientists that actively restores and manages habitat of endangered, threatened, and sensitive species and the ecosystems on which they depend. ESRC provides integrated teams to apply state-of-the-art techniques and expertise to solve many of today's endangered species problems. ESRC members are recognized experts in conservation genetics, restoration ecology, pathology, veterinary medicine, animal behavior, avian propagation, land management, predator and weed control, species reintroduction, environmental law, plant and animal population demography and monitoring, fire ecology, radio and satellite telemetry, recovery planning, botany, ornithology, mammalogy, and tropical forest ecology. All ESRC members are highly experienced at putting scientific and management principles into action. Much of ESRC's work on endangered species in the United States, Mexico, Russia, and New Zealand has been funded by government agencies.

II. Regulatory History

The Brown Pelican, including both the eastern and western subspecies in North America, suffered severe declines affecting all age groups throughout its range during the 1950s and 1960s. Research eventually showed that the decline was linked to the occurrence in coastal marine food webs, owing to manufacturing operations, of the organochlorine pesticide endrin. At about the same time, widespread reproductive failures occurred as a result of eggshell thinning caused by DDT and its principal metabolite, DDE. The worst of these failures was related to the release of DDT into the environment from manufacturing operations. Thus, this

⁴ USFWS. California Brown Pelican Recovery Plan, p. 6 (1983).

species' status became a notable conservation issue when populations of this and other species (e.g., Bald Eagle, *Haliaeetus leucocephalus* and Peregrine Falcon, *Falco peregrinus*) fell due to both direct toxicity and impaired reproduction resulting from organochlorine pollution. As a result of the population declines, the Brown Pelican was listed as endangered throughout its range in the United States in October 1970⁵ and in its foreign range in June 1970.⁶ This listing was under the authority of the predecessor to the Endangered Species Act of 1973, as amended.⁷ California listed this species as endangered at the state level on June 27, 1971.⁸

The Environmental Protection Agency banned the use of DDT and similar pesticides in the United States in 1972⁹ and greatly curtailed the use of endrin. Brown Pelicans responded immediately, with improved reproductive success and rebounding populations. There have been calls by recognized experts to delist the California Brown Pelican for over two decades. In 1980, Dr. Lloyd Kiff and Dr. Joseph Jehl, Jr., petitioned USFWS to delist the California Brown Pelican, but USFWS never acted on that petition, ¹⁰ even though USFWS was required to do so by § 4(b)(3)(A) of the ESA. That same year, the noted pelican expert Dr. Ralph Schreiber stated that the California Brown Pelican was "no longer endangered or threatened" and that retaining this status "can no longer be defended with biological data." ¹¹ In 1983, as a result of the regulatory changes in the use of chlorinated hydrocarbons, USFWS proposed to delist Brown Pelicans in that portion of their range that occurs along the Gulf of Mexico and Atlantic coasts, except for Louisiana and Texas, because the species was deemed to have recovered to such an extent that it no longer fit the definition of "endangered" or "threatened" in those areas. At that time, the Service determined that

the environmental residue levels of these persistent compounds have steadily decreased in most areas. There has also been a corresponding increase in the eggshell thickness and reproductive success of brown pelicans as well as many other avian predators, including bald eagles and peregrine falcons. Pesticide residue

⁵ 35 Fed. Reg. 16047 (October 13, 1970).

⁶ 35 Fed. Reg. 8495 (June 2, 1970).

⁷ 16 U.S.C. §§ 1531 et seq.

 $^{^{8}\} http://www.dfg.ca.gov/whdab/pdfs/TEAnimals.pdf$

⁹ 37 Fed. Reg. 13369 (July 7, 1972).

¹⁰ (Kiff, pers. comm.).

¹¹ Schreiber, R. W. The Brown Pelican: An endangered species? Bioscience 30:742-47, p. 746 (1980).

levels in brown pelican eggs in the area affected have steadily decreased since they were first measured in 1969. 12

In 1985, the delisting of the Florida Brown Pelican (*P. o. carolinensis*) was finalized over much of its range, but the California Brown Pelican subspecies remained listed. ¹³ In 1984, Dr. Joseph J. Jehl, Jr. wrote:

From a dismal future in 1970 the California population has rebounded dramatically and is now reproducing 'normally.' At present, 75,000-90,000 birds occur off the west coast in fall. Fortunately, there is no longer either biological or political justification for according the west coast population 'Endangered' status. To provide special protection for a species that numbers in the tens of thousands strains the sensibilities of laymen and undermines their confidence in the credibility of conservationists. The pelican's problem (nesting failure) was documented; the cause of the problem (DDT) was established; corrective action (banning DDT) was taken; and the pelican recovered. It is time to proclaim this as a research triumph of the first magnitude -- and to move our attention to more pressing problems. 14

In 1986, the Pacific Seabird Group, an organization of professional seabird biologists, wrote to the Endangered Species Office of USFWS to ask USFWS to down-list the California Brown Pelican (Enclosure). After noting its agreement with the recent action by USFWS to delist the Florida Brown Pelican, the Pacific Seabird Group provided its professional assessment of the current situation with California Brown Pelicans.

Based on current information on the California brown pelican, we think its improved status in California warrants some kind of positive action by the USFWS, as well.

¹² 48 Fed. Reg. 51736, 51736-37 (November 10, 1983).

¹³ 50 Fed. Reg. 4938 (February 4, 1985).

¹⁴ Jehl, J. R., Jr. Conservation Problems of Seabirds in Baja California and the Pacific Northwest. Pp. 41-48 in J. P. Croxall, *et al.* Status and Conservation of the World's Seabirds. International Council for Bird Preservation Tech. Pub. No. 2 (1984).

¹⁵ Letter from Lora L. Leschner, Chair, Pacific Seabird Group, to John L. Spinks, Jr., Chief, Office of Endangered Species, USFWS (March 17, 1986). This letter was copied to the California Department of Fish and Game Nongame Office.

> We think that the California brown pelicans are ready for downlisting to "threatened" status, and we suggest that USFWS initiate the process to bring this about. Since very little has been done to effect or improve brown pelican (and other seabird) conservation south of the border through improved cooperation with Mexico, we recommend this intermediate step at this time. Fortunately, the Mexicans have initiated a plan to protect important seabird colonies in the Gulf of California. Currently, however, the pelican breeding colony at Isla Coronado Norte off San Diego has declined drastically due to human disturbance. A small amount of coordination between the USFWS and the Mexican government could go a long way toward the eventual delisting of this species. In the meantime, it seems like a needed, positive step to reclassify the California brown pelican to "threatened" status, yet still recognizing the vulnerability of brown pelicans to the south. 16

The Pacific Seabird Group apparently believed that in 1986 the primary barrier to delisting the subspecies was a concern about its status in Mexico. Ms. Leschner explained that the Pacific Seabird Group's letter "was recommended by members of the California Brown Pelican Advisory Committee." So far as we can determine, USFWS never determined whether that petition was warranted by publishing a notice in the Federal Register as required by § 4(b)(3)(A) of the ESA.

In 1991, the views expressed in 1984 by Dr. Jehl were endorsed by Dr. David G. Ainley and Dr. George L. Hunt, Jr. They stated "the removal of pelicans from the 'endangered list' would herald a much needed, impressive success story of wildlife agencies and managers." We are unaware that the USFWS has ever conducted a status review of the California Brown Pelican although § 4(c)(2)(A) requires the Service to conduct one "at least once every five years."

¹⁶ *Id*.

¹⁷ Lora L. Leschner, "The Chair's Page," Pacific Seabird Group Bulletin, Vol. 13 (2), p. 74 (1986).

Ainley, D. G. and G. L. Hunt, Jr. Status and Conservation of Seabirds in California.
 Pp. 103-114 in J. P. Croxall, *et al.* Seabird Status and Conservation: A Supplement.
 International Council for Bird Preservation Tech. Pub. No. 11 (1991).

III. Statutory and Regulatory Requirements for Delisting

A. General Procedures, Timeline and Notice Requirements

The ESA provides that "after receiving the petition of an interested person under" 5 U.S.C. § 553(e)¹⁹ to "remove a species" from "either of the lists published under subsection (c)" of ESA § 4, the Secretary "shall make a finding as to whether the petition presents substantial scientific or commercial information indicating that the petitioned action *may be* warranted."²⁰ The petition process has been described as "strik[ing] a delicate balance between judicial review, agency expertise, and the public's right to a healthy, sustainable ecosystem which fosters biological diversity," by establishing "mandatory bright lines of both timing and behavior that are readily open to judicial review."²¹ A finding by the Secretary that a petition does not meet the "may be warranted" threshold is also subject to judicial review.²² In those cases in which the Secretary determines that a petition does indeed present "substantial scientific or commercial information" that indicates that the requested delisting "may be warranted," the Secretary is then required to "promptly commence a review of the status" of the species at issue.²³ Thereafter, the Secretary must, within 12 months of initially receiving the petition, make one of the following findings:

- (i) The petitioned action is not warranted, in which case the Secretary shall promptly publish such finding in the Federal Register.
- (ii) The petitioned action is warranted, in which case the Secretary shall promptly publish in the Federal Register a general notice and the complete text of proposed regulation to implement such action.
- (iii) The petitioned action is warranted, but that
 - (I) the immediate proposal and timely promulgation of a final regulation implementing the petitioned action . . . is

¹⁹ Subsection (e) of 5 U.S.C. § 553 (*i.e.*, the Administrative Procedure Act) provides generally that "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule."

²⁰ ESA § 4(b)(3)(A) (emphasis added).

²¹ See Wyoming v. U.S. Dep't of Interior, 360 F.Supp.2d 1214, 1229 (D. Wyo. 2005).

²² See ESA § 4(b)(3)(C)(ii).

 $^{^{23}}$ Id.

precluded by pending proposals to determine whether any species is an endangered species or a threatened species, and

(II) expeditious progress is being made to add qualified species to either of the lists published under subsection (c) of this section and to remove from such lists species for which the protections [under the ESA] are no longer necessary;

in which case the Secretary shall promptly publish such finding in the Federal Register, together with a description and evaluation of the reasons and data on which the finding is based.²⁴

A finding that the petition is "not warranted" under clause (i), or that the petition is "warranted" but "precluded" under clause (iii), is subject to judicial review.²⁵

B. <u>Implementing Regulations</u>

The regulations adopted by the USFWS to implement the ESA requirements related to petitions to "delist" listed species largely track the relevant statutory provisions, while setting forth in greater detail the form of such petitions and elaborating upon the standards the Secretary should apply in ruling upon a delisting request. The regulations specify that "substantial information" means "that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted."

In assessing whether a petition meets the "may be warranted" threshold, the Secretary is directed to consider whether the petition

- (1) clearly indicates the administrative measure recommended and gives the scientific and any common name of the species involved;
- (2) contains detailed narrative justification for the recommended measure, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species;

²⁴ See ESA § 4(b)(3)(B)(i)-(iii).

²⁵ See ESA § 4(b)(3)(C)(ii).

²⁶ 50 C.F.R. § 424.14(b)(1).

- (3) provides information regarding the status of the species over all or a significant portion of its range; and
- (4) is accompanied by appropriate supporting documentation in the form of bibliographic references, reprints of pertinent publications, copies of reports or letters from authorities, and maps.²⁷

When a "may be warranted" finding is made pursuant to 50 C.F.R. § 424.14(b)(1), the Secretary then is required to "commence a review of the status of the species concerned" and to make "within 12 months of receipt" of the petition, one of the three possible findings specified by ESA § 4(b)(3)(B)(i)-(iii) and described above. While the Secretary is not required to undertake a status review for every petition it receives, the "standard for evaluating whether substantial information has been presented by an 'interested person' is not overly-burdensome," in that "conclusive information" is not required at this stage of the process," and a "reasonable person" standard is used to determine whether "substantial information has been presented to indicate that the action may be warranted." 28

The regulations make clear that a species may be delisted only if such information "substantiate[s] that [the species] is neither endangered nor threatened for one or more of the following reasons": (1) that the species is considered to be extinct; (2) that the species has recovered to the point that "protection under the Act is no longer required;" or (3) that initial classification of the species as endangered or threatened was in error.²⁹

IV. California Brown Pelicans Have Recovered

Declines in population size and poor breeding success were the criteria used to justify the listing in 1970. There are a variety of factors that may be used to assess recovery, and reasonable biologists may disagree concerning which criteria should be applied in any particular situation. USFWS approved a recovery plan for the California Brown Pelican that, while ostensibly addressing the entire subspecies, actually "deals primarily with the northern population segment . . . which has shown the major declines that were the impetus of the

²⁷ See 50 C.F.R. § 424.14(b)(2)(i)-(iv).

²⁸ See Moden v. U.S. Fish and Wildlife Service, 281 F.Supp.2d 1193, 1204 (D.Or. 2003).

²⁹ See 50 C.F.R. at § 424.11(d)(1)-(3). To date, some 40 different species of plants and animals have been delisted for one of these three reasons.

³⁰ USFWS. California Brown Pelican Recovery Plan, p. 1 (1983).

endangered classification."³¹ The entire subspecies is listed as endangered, and USFWS has never made any determination concerning any distinct population segment of that subspecies such as that located in the Southern California Bight. In addition, the recovery plan does not mention, let alone directly address, the five factors that USFWS must consider in determining whether delisting is warranted. These factors, which are identical to those used to determine whether a species may be listed in the first place, are:

- (1) the present or threatened destruction, modification, or curtailment of the species' habitat or range;
- (2) overutilization of the species' for commercial, recreational, scientific, or educational purposes;
- (3) disease or predation;
- (4) the inadequacy of existing regulatory mechanisms; and
- (5) other natural or manmade factors affecting the species' continued existence.³²

In making determinations based on these factors, the USFWS may do so "solely on the basis of the best scientific and commercial data available."

The following discussion will show that the subspecies is not "in danger of extinction throughout all or a significant portion of its range" (endangered) and that it is not "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (threatened). The discussion focuses on both the statutory criteria for delisting and the criteria that USFWS included in its recovery plan. The recovery plan stated that the primary objective is "to restore and maintain stable, self-sustaining populations throughout the subspecies' range." It continued:

³¹ *Id*. at 2.

³² ESA § 4(a)(1)(A)-(E); 50 C.F.R. §§ 424.11(c)(1)-(5), 424.11(d)

³³ See ESA § 4(b)(1)(A); 50 C.F.R. § 424.11(b).

³⁴ ESA § 3(6).

³⁵ ESA § 3(20).

³⁶ ESA § 4(a)(1)(A)-(E); 50 C.F.R. §§ 424.11(c)(1)-(5), 424.11(d); USFWS. California Brown Pelican Recovery Plan (1983).

³⁷ USFWS. California Brown Pelican Recovery Plan. p. 74 (1983).

The accomplishment of this goal will require achievement of the following criteria:

- 1. Maintain existing populations in Mexico.
- 2. Assure long-term protection of adequate food supplies and essential nesting, roosting and offshore habitat throughout the range.
- 3. Restore population size and productivity to self-sustaining levels in the SCB [Southern California Bight] (both Anacapa and Los Coronados).³⁸

We do not discuss two factors that USFWS must consider because we do not believe they have contributed in any significant manner to the declines in California Brown Pelican populations, nor are they identified as important issues in the recovery plan: (1) over-utilization of the species for commercial, recreational, scientific, or educational purposes; and (2) disease or predation.³⁹ We discuss below issues related to the destruction, modification, or curtailment of the California Brown Pelican's habitat or range and the adequacy of existing regulatory mechanisms under the category Status of Management of California Brown Pelicans. We then discuss "natural or manmade factors affecting the California Brown Pelican's continued existence," including evidence of recovery, under the category of Status and Trends of Population and Productivity.

Status of Management of California Brown Pelicans Α.

1. **Maintaining Existing Populations in Mexico.**

Maintaining existing populations in Mexico was identified as the first of three priority issues in the recovery plan. Dr. Schreiber maintained in 1980 that the California Brown Pelicans in the Gulf of California "unlike those breeding in California -- have never been endangered." 40 In 1983, the Recovery plan identified four populations with the following numbers of nesting pairs:⁴¹

³⁸ *Id*.

³⁹ "Disease, parasites, and predation may have been limiting factors in isolated, local situations but were probably of little consequence to long-term population trends." USFWS. California Brown Pelican Recovery Plan, p. 41 (1983).

⁴⁰ Schreiber, R. W. The Brown Pelican: An endangered species? 30 Bioscience 742-47, p. 746 (1980).

⁴¹ USFWS. California Brown Pelican Recovery Plan, Table 1, p. 176 (1983).

Location	"Poor Year"	"Good Year"	"Usual Year"	Percent Total
				Population
Southern California Bight	1,500	5,000	3,000	6.2
Southwest Baja California	1,200	8,500	5,000	10.3
Gulf of California	20,000	36,000	33,000	68.0
Mexican Mainland	6,000	9,000	7,500	15.5
Total	28,700	58,500	48,500	

Thus, colonies in Mexico accounted for over 94% of the nesting population of California Brown Pelicans in 1983. The 6.2% in the Southern California Bight included the Channel Islands in the U.S., together with Islas Los Coronados, San Martín and Todos Santos in Mexico. In 1983, there was considerable concern about the adequacy of regulatory mechanisms in Mexico to protect those resources. Now, the vast majority of the 20 or so California Brown Pelican colonies in Baja California are protected as parks, refuges or similar conservation areas. The Mexican federal government has established and has begun to actively manage a large network of Biosphere Reserves and a conservation program for the islands of the Gulf of California. Several Mexican biologists and wildlife managers recently wrote

The Mexican federal government decreed in 1978 all the Gulf of California Islands as a natural protected area and in 1997 hired full time trained professionals to do the required management of the Gulf of California Islands Natural Protected Area, in the states of Baja California, Baja California Sur and Sonora. Brown Pelicans [and other species] are considered the indicator species for this Natural Protected Area. These species are being monitored by local

⁴² See discussion above, pp. 4-5.

⁴³ W. T. Everett and D. W. Anderson. Status and Conservation of the Breeding Seabirds on Offshore Pacific Islands of Baja California and the Gulf of California. Pp. 115-139 in J. P. Croxall, *et al.* Seabird Status and Conservation: A Supplement. International Council for Bird Preservation Tech. Pub. No. 11 (1991).

⁴⁴ SEMARNAP. Programa de manejo área de protección de flora y fauna Islas de Golfo de California México. Comisión Nacional de Áreas Naturales Protegidas, Ave. Revolución 1425, Col. Tlacopac, México, D. F. (2000).

personnel, in collaboration with scientific groups and the Mexican Navy. 45

In addition, Mexican authorities currently are reviewing a proposal to establish a Pacific Island Biosphere Reserve, which would increase protection for seabird roosting and nesting habitat at Islas Los Coronados, Todos Santos, San Martín, San Jeronimo, Cedros, San Benitos, and Adelaida.⁴⁶

The management of seabird colonies in Mexico has improved in recent years, much of it with assistance from the U.S. biologists and wildlife managers. For example, in January 1995, a workshop was convened under the auspices of the Pacific Seabird Group and funded as the first North American Free Trade Agreement (NAFTA) grant to train Mexican biologists to remove introduced predators from seabird colonies, including those of the California Brown Pelican in Baja California.⁴⁷ In July 2000, the trustees of the *American Trader* oil spill in Huntington Beach, California, funded the eradication of introduced animals on islands containing Brown Pelican colonies adjacent to the Baja Peninsula. In May 2005, the trustees of the Montrose Settlement Trust Fund proposed expenditures from the settlement of claims for damages to pelicans caused by the dumping of DDT and PCBs into Southern California coastal waters. The projects include the use of social attractants and improved nesting habitat to restore nesting colonies at numerous islands in Baja California, including Islas Los Coronados, Todos Santos, and San Martín. 48 In addition, there have been several international meetings of seabird biologists in Baja California during the past two decades, including planned seabird sessions at the North American Ornithological Congress (Veracruz, 2006). There are programs in place to protect colonies from introduced predators and to discourage the public from entering and disturbing colonies during the breeding season.

These improvements in wildlife management have benefited California Brown Pelicans. The primary authors of the recovery plan noted in 2003 that they

⁴⁵ Reyes, C. G., A. F. Gonzalez and D. W. Anderson. Seabird conservation efforts in the Gulf of California Islands, As a Federal Natural Protected Area. Abstract of paper presented at Pacific Seabird Group Annual Meeting (La Paz, Mexico, January 2004).

⁴⁶ PRBO, The California Current Marine Bird Conservation Plan, p. 43. http://www.prbo.org/cms/docs/marine/CCS%20Plan Chpt%202 with appendices web.pdf

⁴⁷ USFWS Agreement No. 14-48-0009-95-1223 (Project Officer Craig S. Harrison).

⁴⁸ Montrose Settlements Restoration Program Draft Restoration Plan and Programmatic Environmental Impact Statement and Environmental Impact Report (April 2005). http://www.darp.noaa.gov/southwest/montrose/

have studied California Brown Pelicans in Mexico since 1971, where larger populations have continuously remained stationary. In colonies of the Midriff Region of the Gulf of California in a good year, there are 35,000 to 40,000 nesting pairs producing an average of 0.8-1.2 young per nesting attempt. The Gulf is so important to pelicans that we have come to term the species, "the King of the Cortéz." South in the mangroves of western Mexico and on some offshore islands, 8,000 to 10,000 additional nesting pairs occur.⁴⁹

These population estimates are slightly larger than those made in 1983. 50 Those authors also note that "in a good year" management goals for the average size of stabilized breeding efforts in the northwestern Mexico breeding colonies of Islas Los Coronados and San Martín are met.⁵¹ These colonies are considered to be part of the Southern California Bight, where about 6% of the Brown Pelican population occurred in 1983 and about 12% of the population occurs today.⁵² Chevron Corporation has proposed a liquefied natural gas facility near Islas Los Coronados, a proposal that has been appealed to the Commission for Environmental Cooperation, an organization of NAFTA. Depending upon the ultimate permit requirements, such an industrial facility might affect the nesting of California Brown Pelicans there, although concern to date has focused on the effects of artificial light on nocturnal species such as the Xantus' Murrelet, Sythliboramphus hypoleucus.⁵³ It is evident that, at this time, the California Brown Pelican recovery plan's goal of maintaining existing populations in Mexico has been met and that, with the improvements in wildlife management in Mexico, current regulatory mechanisms for pelican protection there are adequate. In making a delisting decision, the USFWS must take into account efforts being made by any foreign nation "to protect such species," whether by "predator control, protection of habitat and food supply, or other conservation practices."54

⁴⁹ Anderson, D. W. and F. Gress. The Recovery of California Brown Pelicans in the Southern California Bight (2003). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html (last viewed November 12, 2005).

⁵⁰ USFWS. California Brown Pelican Recovery Plan, Table 1, p. 176 (1983).

⁵¹ Anderson, D. W. and F. Gress. The Recovery of California Brown Pelicans in the Southern California Bight (2003). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html (last viewed November 12, 2005).

⁵² *See above*, pp. 10-11.

⁵³ See 70 Fed. Reg. 24876-77 (May 1, 2005).

⁵⁴ 50 C.F.R. § 424.11.

2. Adequate Food Supplies and Habitat.

Assuring the long-term protection of adequate food supplies and essential nesting, roosting, and offshore habitat throughout the range was identified as the second of three priority issues in the recovery plan. California Brown Pelicans build nests in low shrubbery or on the ground on islands or remote coastal areas, free of mammalian predators. The two California Brown Pelican colonies in California are located on Anacapa Island and Santa Barbara Island, both of which are part of the Channel Islands National Park, which was created in 1980. Pelicans also require communal night roosts away from the breeding colonies, and human or other disturbance at such sites is important to the health of pelican populations, although such disturbances "are probably not as critical as disturbance to breeding season roosts." Roosting areas and small former colonies have increasingly been protected during the past 20 years by the Park Service, USFWS, California Department of Fish & Game and other agencies, often using funds from oil spill or other trust funds. For example, the proposed Montrose Restoration Plan supports the use of the trust funds to encourage pelicans to nest at Scorpion Rock, off Santa Cruz Island. Secondary of the proposed Montrose Restoration Plan Supports the use of the trust funds to encourage pelicans to nest at Scorpion Rock, off Santa Cruz Island.

The Channel Islands National Marine Sanctuary (CINMS), established in 1980, encompasses the waters to a distance of 6 nautical miles around Anacapa Island and Santa Barbara Island. Sanctuary status regulates such activities as offshore oil development, thus providing additional protection to pelicans adjacent to their colonies. In 2003, marine protected areas were established in 20% of CINMS waters managed by the State of California. Establishment of marine sanctuaries in central California (Monterey Bay, Gulf of the Farallones, and Cordell Bank marine sanctuaries), as well as a marine sanctuary off the Olympic Coast of Washington State, now protect a significant portion of the subspecies' wintering habitat.

Marine sanctuaries do not manage fisheries. However, the conservation requirements of seabirds and other non-target species have increasingly been taken into account in the establishment of quotas in fishery management plans that have been produced pursuant to the Fisheries Conservation and Management Act of 1976. Anchovies, although becoming more and more replaced by resurging sardines, have been an important element of the diet of California Brown Pelicans. In exemplary fashion, the Pacific Fishery Council has considered the needs of California Brown Pelicans and other seabirds in the Northern Anchovy Fishery Management Plan for decades.⁵⁷ The Pacific sardine, as its populations have recovered, has since overtaken

⁵⁵ USFWS. California Brown Pelican Recovery Plan, p. 19 (1983).

⁵⁶ http://www.montroserestoration.gov/

⁵⁷ USFWS. California Brown Pelican Recovery Plan, pp. 54-56 (1983).

the anchovy as the primary forage species in the California Current, but its management, too, has called for very conservative exploitation.⁵⁸

Finally, the EPA removed DDT from the U.S. market place in 1972, and no longer are there any industrial facilities releasing large quantities of DDT into the ocean in either the U.S. or Mexico. Brown Pelican eggshells returned to normal thickness long ago,⁵⁹ as have those of such species as Bald Eagle and Peregrine Falcon. Eggshell thinning in pelicans has decreased to where "there appears to be little or no effect on breeding success."

In conclusion, the nesting habitat, roosting habitat, and feeding habitat of California Brown Pelicans are generally protected by a variety of national and international regulatory mechanisms in the U.S. and Mexico, including a U.S.-Mexico Migratory Bird Treaty that has been implemented in the U.S. by the Migratory Bird Treaty Act. We acknowledge that there are and probably always will be resource conflicts and conservation issues that could affect this subspecies. Such issues are common to most seabirds and can be appropriately addressed through a variety of other programs that will continue to protect these birds after they are delisted. None of these issues, however, rises to a level of concern where a reasonable person would conclude that the subspecies is in danger of extinction or likely to become in danger of extinction within the foreseeable future.

B. Status and Trends of Population and Productivity

Restoring the population size and productivity to self-sustaining levels in the Southern California Bight was identified as the third of three priority issues in the recovery plan. California Brown Pelicans, like most seabirds, have populations that fluctuate over time in

⁵⁸ Coastal Pelagic Species Fisheries Management Plan, Amendment 8 of Northern Anchovy Fishery Management Plan. http://swfsc.nmfs.noaa.gov/frd/Coastal%20Pelagics/Sardine/

⁵⁹ Over 20 years ago "reproductive problems from eggshell thinning [were] not occurring on a large scale basis" in the Channel Island colonies. USFWS. California Brown Pelican Recovery Plan, p. 46 (1983).

⁶⁰ Gress, F., D. W. Anderson, R. W. Risebrough and J. O. Keith. Population recovery of Brown Pelicans breeding in the Southern California Bight: A historical perspective. Abstract of paper presented at Pacific Seabird Group Annual Meeting (La Paz, Mexico, January 2004).

⁶¹ 16 U.S.C. §§ 703-112; *see* Harrison, C. S., H. Fen-Qi, K. S. Choe and Y. V. Shibaev. The Laws and Treaties of North Pacific Rim Nations That Protect Seabirds on Land and Sea. Colonial Waterbirds 15(2): 264-277 (1992).

response to food availability.⁶² The nesting colonies in the Southern California Bight include Anacapa and Santa Barbara islands (Channel Islands) and Islas Los Coronados, Todos Santos, and San Martín (northwestern Mexico). Assessing historical populations and productivity of the subspecies in this area is severely limited by the fact that "the breeding biology and natural history of the California Brown Pelican were virtually unknown until intensive studies began in 1969."⁶³ This date was well after the subspecies suffered declines related to organochlorines. Hence, to fulfill the third priority, and before extreme variability in California Current resources owing to El Niño and the Pacific Decadal Oscillation (PDO) was generally recognized by seabird biologists, the recovery plan recommended the following:

- (a) When any 5-year mean productivity for the SCB population reaches at least 0.7 young fledged per nesting attempt from a breeding population of at least 3000 pairs, the California brown pelican should be considered for reclassification to threatened status.
- (b) When any 5-year mean productivity for the SCB population reaches at least 0.9 young fledged per nesting attempt from a breeding population of at least 3000 pairs, the California brown pelican should be considered for delisting.⁶⁴

A review of the recovery plan indicates that many of the years used to assess the initial benchmark of reproductive success were those that included El Niño, as well as 1978, 65 subsequently appreciated by biologists to be years of depressed reproductive success of California seabirds, including pelicans. 66 During El Niño years, egg laying is reduced, siblicide

⁶² Anderson, D. W. and F. Gress. The Recovery of California Brown Pelicans in the Southern California Bight (2003). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html (last viewed November 12, 2005).

⁶³ USFWS. California Brown Pelican Recovery Plan, pp. 2-3 (1983).

⁶⁴ *Id.* at 74-75.

⁶⁵ *Id.* at Figs 9, 10; Table 2.

⁶⁶ www.cdc.noaa.gov/people/klaus.wolter/MEI/; Ainley, D. G., H. R. Carter, D. W. Anderson *et al.* Effects of the 1982-1983 El Nino-Southern Oscillation on Pacific Ocean bird populations. Proc. XIX Internatl. Ornithol. Congr.: 1747-1758. Natl. Mus. Nat. Sci., Ottawa (1986); D. G. Ainley & R. J. Boekelheide (eds.). Seabirds of the Farallon Islands: Ecology, Structure and Dynamics of an Upwelling System Community. Stanford University Press, Palo Alto. 425 pp. (1990); Ainley, D. G., W. J. Sydeman & J. Norton. Upper-trophic level predators indicate interannual negative and positive anomalies in the California Current food web. Mar. Ecol. Progr. Ser. 118: 69-79 (1995).

often occurs, and mean reproductive output is usually less than one chick per nest, although it occasionally can be higher when food is plentiful.⁶⁷ Even more recently it has become well recognized that the years 1976-1999, a period defining the California Brown Pelican's 'slow recovery' in reproductive and population performance was a period encompassing the 'warm phase' of the Pacific Decadal Oscillation (PDO), when biotic processes in the California Current were also depressed, leading to declines in many species.⁶⁸ Historic and recent patterns in Brown Pelican reproduction and population fluctuation must now be re-assessed in the context of such interannual and decadal variation that affected all marine vertebrates in the California Current during recent decades.

There is little doubt that the population of California Brown Pelicans in the Southern California Bight has been fully recovered for about 20 years. Notwithstanding their recovery being "slowed" by more frequent El Niños in recent decades, ⁶⁹ as well as the warm phase of the PDO, the species has attained at least twice the goal of 3,000 breeding pairs in the Southern California Bight, with over 8,000 pairs (7,500 in the Channel Islands alone) breeding in 2004 (now the cold, productive phase of the PDO). ⁷⁰ In January 2004, before the 2004 breeding season, several researchers very familiar with this species noted (in spite of historical numbers being affected by both El Niño and organochlorine pollution):

Population recovery began in about 1974-75, but the breeding effort did not show significant improvement until the early 1980s. By the mid-1980s, the number of pairs breeding had dramatically increased to levels that exceeded reported mean historical numbers.⁷¹

⁶⁷ USFWS. Seabird Conservation Plan: Pacific Region, p. 127 (2005).

⁶⁸ Batchelder, H., J. A. Barth, , P. M. Kosro, P. T. Strub, R. D. Brodeur, W. T. Peterson, C. T. Tynan, M. D. Ohman, L. W. Botsford, T. M. Powell, F. B. Schwing, D. G. Ainley, D. L. Mackas, B. M. Hickey and S.R. Ramp. The GLOBEC Northeast Pacific California Current Program. Oceanography 15:36-47 (2002).

⁶⁹ www.cdc.noaa.gov/people/klaus.wolter/MEI/

Peterson, W. T. and F. B. Schwing, A new climate regime in northeast Pacific ecosystems. Geophysical Research Letters, Vol 30, No 17, 1896, doi 10:1029/2003GLO17528, 2003.

⁷¹ Gress, F., D. W. Anderson, R. W. Risebrough and J. O. Keith. Population recovery of Brown Pelicans breeding in the Southern California Bight: A historical perspective. Abstract of poster presented at Pacific Seabird Group Annual Meeting (La Paz, Mexico, January 2004). *See* Anderson, D. W. and F. Gress. The Recovery of California Brown Pelicans in the Southern California Bight (2003). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html ("by the early (continued...)

The breeding season in 2004 was so successful that the California colonies had the most nests ever recorded: about 6,000 pairs on West Anacapa Island and about 1,500 on Santa Barbara Island. This breeding effort far exceeded the targets for both Anacapa Island (4,000-5,000 breeding pairs) and Santa Barbara Island (500-800 breeding pairs) that had been set by Dr. Gress and Dr. Anderson in the recovery plan. During summer 2004, California Brown Pelicans congregated around wharfs, marinas, piers, sports fishing boats, and fish processors where they became a nuisance to the public. Moreover, that year, a colony of about 100 nests also was established on South Island, Islas Todos Santos -- the first pelicans nesting there since 1923.

According to a 2005 review and assessment of California Brown Pelicans by the USFWS, populations at California colonies increased during the 1980s and were stable through the 1990s. USFWS estimates that 12,000 individual California Brown Pelicans (6,000 pairs) breed in Southern California, composing approximately 12% of the breeding portion of the California subspecies (100,000 breeding birds), although this estimate appears to be low. Including non-breeders (this species does not breed until 3 to 5 years of age), these estimates imply a total subspecies population of 200,000 birds or more.

In addition to Anacapa and Santa Barbara islands, small numbers of California Brown Pelicans once bred in the Channel Islands at Prince Island (offshore San Miguel Island) and Scorpion Rock (offshore Santa Cruz Island), as well as at Point Lobos Rock near Monterey.⁷⁹

2000s, breeding populations were back to, or even higher than, historical numbers"); Lipske, M. How Rachel Carson helped save the Brown Pelican. National Wildlife 38(1) (December/January 2000) (quoting Dr. Anderson that the Southern California population was roughly 5,000 pairs "which was pretty much what we figured were close to historical numbers.").

⁷² Conservation Report, Pacific Seabirds 31:9-10 (2004).

⁷³ Anderson, D. W. and F. Gress. The Recovery of California Brown Pelicans in the Southern California Bight (2003) (target numbers of breeding pairs are: Islas Los Coronados (500-750) and Isla San Martín (100-300), which have usually been met). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html (last viewed November 12, 2005).

⁷⁴ Conservation Report, Pacific Seabirds 31:9-10 (2004).

⁷⁵ *Id*.

⁷⁶ USFWS. Seabird Conservation Plan: Pacific Region, p. 127 (2005).

⁷⁷ *Id*.

⁷⁸ USFWS. California Brown Pelican Recovery Plan, p. 20 (1983).

⁷⁹ *Id.* at 29-30.

Disappearance of the Monterey colony is ascribed to disappearance of the Pacific sardine during the 1950s. The recolonization of former colonies is poorly understood and somewhat serendipitous, especially at the edge of a species' range as is the case here. Moreover, it is now appreciated that small colonies of seabirds are affected by large colonies nearby. Thus we ascribe no great significance to the absence of pelicans at these small former colonies. It just may be that a supply of sticks, which they use to build nests, would encourage nesting again.

Furthermore, in addition to recovery of breeding populations and reproductive success, the population has now reoccupied virtually all of its former non-breeding season range. In 1983-84, responding to a very strong El Niño moving warm waters well north, California Brown Pelicans moved north in large numbers, returning to the productive waters in the Columbia River estuary during summer and fall, an area they had not used since leaving those parts during a warm phase of the PDO at the beginning of the 1900s. Since the early 1980s they have continued this renewed pattern. In 2002, about 11,000 California Brown Pelicans roosted on East Sand Island, at the mouth of the Columbia River. Many have been engaging in breeding displays there, which raises the possibility that colonies may soon become established or reestablished north of their current breeding range. Such patterns are consistent with increased

⁸⁰ Baldridge, A. The status of the brown pelican in the Monterey region: past and present. Western Birds 4: 93-100 (1974).

⁸¹ Furness, R.W. and T. R. Birkhead. Seabird colony distributions suggest competition for food supplies during the breeding season. Nature 311:655–656 (1984); Ainley, D. G., R. G. Ford, E. D. Brown, R. M. Suryan and D. B. Irons. Prey availability, interference competition, and the geographic structure of seabird colonies: a study of Black-legged Kittiwakes and forage fish in Prince William Sound, Alaska. Ecology 84: 709-723 (2003); Ainley, D. G., C.A. Ribic, G. Ballard, S. Heath, I. Gaffney, B. J. Karl, K. R. Barton, P. R. Wilson and S. Webb. 2004. Geographic structure of Adélie Penguin populations: size, overlap and use of adjacent colony-specific foraging areas. Ecological Monographs 74: 159-178 (2004).

⁸² Jaques, D. L. Range expansion and roosting ecology of non-breeding California Brown Pelicans. MSc thesis, University of California, Davis CA, p. 26ff (1994); Ainley, D. G. and G. J. Divoky. Seabirds: effects of climate change. *In*: Steele, J., Thorpe, S. and Tarekian, K. (Eds.). Encyclopedia of Ocean Sciences. London. Academic Press. Pp. 2669-2677 (2001).

⁸³ Conservation Report, Pacific Seabirds 31:51-52 (2004); Wright, S. K. and D. D. Roby. Roosting ecology of California Brown Pelicans of East Sand Island, Oregon: Effects of human disturbance. Abstract of paper presented at Pacific Seabird Group Annual Meeting (La Paz, Mexico, January 2004).

⁸⁴ Wright, S. K., D. D. Roby and R. G. Anthony. California Brown Pelicans nesting in the Pacific Northwest?: Potential for a major northward expansion in breeding range. Abstract of paper presented at Pacific Seabird Group Annual Meeting (Santa Barbara, February 2002).

ocean productivity related to a return to the cold phase of the PDO and are surely not the hallmark of a subspecies that "is in danger of extinction throughout all or a significant portion of its range" or "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

In 2004, the overall productivity rate appeared to be very high. 86 Clearly, the recovery plan's productivity criterion of at least 0.7 young fledged per nesting attempt (recommended for down listing to threatened) has been met, but the criterion of at least 0.9 young fledged per nesting attempt (recommended for delisting entirely) has not been met for the population in the Southern California Bight, 87 although it has been met in the remainder of the subspecies' range. 88 We believe, on biological grounds, that under the circumstances of this subspecies, the recovery plan's productivity criteria can be safely ignored. From a legal and regulatory perspective, any productivity criteria should be assessed for the entire subspecies, not just the northern edge of the range that encompasses today about 12% of the population (6% of the population in 1983). The entire subspecies is listed as endangered, but the productivity criteria in the recovery plan essentially transform the Southern California Bight population into a distinct population segment. This approach then deems the other three population segments (88% of the subspecies today; 94% in 1983) to be endangered or threatened by invoking a productivity criterion that is met by the vast majority of the subspecies but is marginally not met in 12% (or 6%) of the subpopulation. The recovery plan states that the long-term mean of 1.0 young fledged per nesting is typical in Florida and the Gulf of California, 89 where 68% of California Brown Pelicans breed. Thus it would appear that, if the 0.9 young fledged per nesting attempt criterion were applied to the entire subspecies, the criterion is not only currently met it has been met for decades. In 2003, California Brown Pelicans nesting in the Gulf of California achieved an average of 0.8-1.2 young per nesting attempt. 90

⁸⁵ ESA §§ 3(6), 3(20).

⁸⁶ Conservation Report, Pacific Seabirds 31:9-10 (2004).

⁸⁷ USFWS. California Brown Pelican Recovery Plan, pp. 74-75 (1983).

⁸⁸ Anderson, D. W. and F. Gress. The Recovery of California Brown Pelicans in the Southern California Bight (2003). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html (last viewed November 12, 2005).

⁸⁹ USFWS. California Brown Pelican Recovery Plan, p. 42 (1983).

⁹⁰ Anderson, D. W. and F. Gress, The Recovery of California Brown Pelicans in the Southern California Bight (2003). http://bonita.mbnms.nos.noaa.gov/reports/2003/eco/endangered.html (last viewed November 12, 2005).

From a purely biological perspective, the appropriate metric for productivity in the Southern California Bight would be the historical productivity from this area. However, such information does not exist. 91 The recovery plan speculates that, based on theoretical considerations, the Southern California Bight population should have long-term reproductive rates higher than or at least equal to those of populations in the Gulf of California and Florida, but it acknowledges that, in 1983, "[u]nfortunately, no data are available to test such hypotheses."⁹² The recovery plan acknowledges the possibility "that mean historical productivity of the SCB colonies was typically lower than that observed in Florida or the Gulf of California."93 It is misleading to assume that populations of seabirds in different locations would have similar productivities. Indeed, natural-history parameters in separate populations often compensate in different ways.⁹⁴ As an example from the seabird literature, it is wellknown that the Black-legged Kittiwake (Rissa tridactyla), one of the most well-studied of all seabirds, has a reproductive rate in Alaska much lower than that of the same species in the British Isles. The kittiwake thrives quite well in both areas, but an Alaska productivity applied to Atlantic populations would render them extinct a long time ago. ⁹⁵ This indicates that life-history attributes other than productivity can enable populations to be stable and even to grow.⁹⁶

The Black-legged Kittiwake situation would likely apply to the California Brown Pelican. The mid-1970s brought the warm phase of the PDO. As noted above, this oceanographic condition generally caused declines in, and then eventually depressed populations of many seabird species in the California Current, including California Brown Pelicans. ⁹⁷ Since 1999, the

⁹¹ USFWS. California Brown Pelican Recovery Plan, pp. 2-3 (1983) ("the breeding biology and natural history of the California Brown Pelican were virtually unknown until intensive studies began in 1969.")

⁹² *Id.* at 13-14.

⁹³ *Id.* at 43.

⁹⁴ Caswell, H. Matrix population models. Sinauer Associates, Sunderland, MA (1989).

⁹⁵ Gill, V. A. and S. A. Hatch. Components of productivity in black-legged kittiwakes *Rissa tridactyla*: response to supplemental feeding. Journal of Avian Biology 33(2):113 (2002).

⁹⁶ Ainley, D. G., R. G. Ford, E. D. Brown, R. M. Suryan and D. B. Irons. Prey availability, interference competition, and the geographic structure of seabird colonies: a study of Black-legged Kittiwakes and forage fish in Prince William Sound, Alaska. Ecology 84: 709-723 (2003).

⁹⁷ Ainley D. G. and G. J. Divoky. Seabirds: Effects of climate change. Pp. 2669-2677 in Encyclopedia of Ocean Sciences (J. Steele, S. Thorpe & K. Tarekian, eds.). Academic Press, London (2001).

PDO has shifted back to its cold phase, and the population of California Brown Pelicans in the Southern California Bight, like other California Current seabirds (e.g., Cassin's Auklet, Ptychoramphus aleuticus and Common Murre, Uria aalge), has increased as survival and reproductive rates have improved.⁹⁸ The increase in food resources also would increasingly lure a large influx of California Brown Pelicans from Mexico to feed and winter in the California Current. Pelican productivity has been highly sensitive to forage fish fluctuations. Before the recent sardine surge, in years when anchovies were the main prey item, pelicans almost always had higher reproductive rates in years of peak anchovy abundance.⁹⁹ The recovery plan stated that it is not known whether the Southern California Bight "population could sustain itself with perpetually low productivity."¹⁰⁰ Given the increases in this population during the 22 years since the USFWS issued the recovery plan, in spite of the warm PDO during most of this time, we can put theoretical considerations aside and answer the question posed by the recovery plan with a resounding "yes!" Not only can this population sustain itself with perpetually "low" productivity, it has flourished for the past two decades and has increased with less than 0.9 young fledged per nesting attempt. Subadult survival and relaxed philopatry¹⁰¹ must be the key. On the other hand, if the breeding population growth is ultimately attributed to influxes of California Brown Pelicans from the Gulf of California or southwestern Mexico that now breed in the Southern California Bight, 102 it would warrant reconsideration of whether this subspecies actually consists of distinct subpopulations. 103

Finally, the recovery plan's criteria contain a "Catch-22" conundrum. To assure a sustainable population, recovery is defined to require at least 3,000 nests and a productivity of at least 0.9 chicks per nest, or a minimum of 2,700 young per year. With the 2004 population of over 8,000 nests, 0.7 chicks per nest would produce over 5,600 young that, according to the criteria in the recovery plan, are insufficient to sustain the population, even though it is over twice the target number of young in the respective criterion. Because "food availability [is] the

⁹⁸ D. G. Ainley and L. B. Spear (unpublished data).

⁹⁹ Harvey, L., F. Gress, D. W. Anderson, and P. R. Kelly. Food habits of Brown Pelicans breeding in the Southern California Bight. Abstract of poster presented at Pacific Seabird Group Annual Meeting (La Paz, Mexico, January 2004).

¹⁰⁰ USFWS. California Brown Pelican Recovery Plan, p. 43 (1983).

¹⁰¹ This is known for this species. *See* USFWS. California Brown Pelican Recovery Plan, pp. 5-7 (1983).

¹⁰² USFWS. California Brown Pelican Recovery Plan, p. 6 (1983).

¹⁰³ This is an interesting question for pelican biologists to study and ponder, but it need not be answered in order to conclude that this subspecies is not endangered or threatened.

most important limiting factor influencing pelican breeding success,"¹⁰⁴ productivity in the Southern California Bight is likely suppressed today by the abundance of pelicans nesting there. In early 2005, the USFWS justified dispersing the large Caspian Tern colony on East Sand Island in the Columbia River estuary in part because the large size of the colony has rendered the productivity of tern nesting there to be low. ¹⁰⁵ Research on other seabirds has shown that large colonies often have lower reproductive success than small ones, owing to greater interference competition for food. ¹⁰⁶ The recovery plan's productivity goal might be attained by limiting breeding efforts (e.g., no more than 3,500 nests) to boost productivity to 0.9 young per nest. We do not think anyone would support this approach in the case of a supposed endangered species (although USFWS has supported it in the case of the Caspian Terns!), but this example emphasizes the problems with adhering to the recovery plan's criteria for a population of California Brown Pelicans that may exceed historical numbers. The recovery plan acknowledges that with "additional population or reproductive data . . .the criteria can be adjusted." The criterion of 0.9 chicks per nest in the Southern California Bight before the subspecies can be delisted is one that should be adjusted by abandoning it.

V. Conclusion

California Brown Pelicans have a population of around 200,000 birds, produce young in synchrony with environmental variables that track other species in the California Current, and have maintained an upward population trajectory for years. The fact that the subspecies remains listed emphasizes the fact that in some cases it is far easier to recover a species than to remove it, once recovered, from the endangered species list. We acknowledge that Brown Pelicans, like most seabirds, remain at risk due to many human and natural factors. Introduced mammals or human intrusion on colonies can cause nest abandonment and low reproductive success. Pelicans can die when they become entangled in fishing gear. Populations may be affected by declines in prey stocks due to over-fishing, El Niño events, or longer-term climate variability.

¹⁰⁴ USFWS. California Brown Pelican Recovery Plan, p. 48 (1983).

¹⁰⁵ USFWS. Caspian Tern Management to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary: Final Environmental Impact Statement (January 2005).

¹⁰⁶ Lewis, S., T. N. Sherratt, K. C. Hamer, and S. Wanless. Evidence of intra-specific competition for food in a pelagic seabird. Nature 412:816–819 (2001); Ainley, D.G., C.A. Ribic, G. Ballard, S. Heath, I. Gaffney, B.J. Karl, K.R. Barton, P.R. Wilson & S. Webb. 2004. Geographic structure of Adélie Penguin populations: size, overlap and use of adjacent colony-specific foraging areas. Ecological Monographs 74: 159-178 (2004).

¹⁰⁷ USFWS. California Brown Pelican Recovery Plan, p. 75 (1983).

Oil pollution can cause adult mortality and reproductive failures. ¹⁰⁸ In spite of these risks, we do not believe that all seabirds should be listed as endangered or that the extraordinary protection afforded by the ESA is now necessary, warranted or defensible for this subspecies. This subspecies is neither in danger of extinction now, nor is it likely to be in danger of extinction in the foreseeable future. We are confident that if this subspecies were not already listed, USFWS would surely not act to place it on the endangered or threatened species list today.

Please do not hesitate to contact us if you have any questions or concerns. For example, we believe that all literature cited in this petition is readily available to USFWS, but we will provide copies or web sites of any citation upon request. You will note that in many instances we have cited USFWS documents and web sites. Dr. David G. Ainley and Dr. George J. Divoky participated in the preparation of this petition.

Sincerely,

Craig S. Harrison

Enclosure

cc: William T. Everett, ESRC

¹⁰⁸ See, e.g., Kelly, P. R., D. W. Anderson, F. Gress and D. Jacques. Pelicans and oil: changing perceptions. Abstract of poster presented at Pacific Seabird Group Annual Meeting (La Paz, Mexico, January 2004).

Pacific Seabird Group



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT 9209 - 180th N.W., Stanwood, Washington 98292

March 17, 1986

Mr. John L. Spinks, Jr. Chief, Office of Endangered Species U.S. Department of the Interior U.S. Fish and Wildlife Service Washington, D.C. 20240

Dear Mr. Spinks:

The Pacific Seabird Group (PSG) is an organization of professional biologists involved in seabird research and conservation. A number of our members are involved in research on the brown pelican. I have enclosed a pamphlet describing the PSG for your information.

We have studied the recent data on the California brown pelican and we are familiar with the recovery plan's objectives and step-down procedures. And, we agree with the U.S. Fish and Wildlife Service's (USFWS) recent action to delist the Florida brown pelican. Based on current information on the California brown pelican, we think its improved population status in California warrants some kind of positive action by the USFWS, as well.

We think that the California brown pelicans are ready for down-listing to "threatened" status, and we suggest that USFWS initiate the process to bring this about. Since very little has been done to effect or improve brown pelican (and other seabird) conservation south of the border through improved cooperation with Mexico, we recommend this intermediate step at this time. Fortunately, the Mexicans have initiated a plan to protect important seabird colonies in the Gulf of California. Currently, however, the pelican breeding colony at Isla Coronado Norte off San Diego has declined drastically due to human disturbance. A small amount of coordination between the USFWS and the Mexican government could go a long

John L. Spinks March 17, 1986 Page 2

way toward the eventual delisting of this species. In the meantime, it seems like a needed, positive step to reclassify the California brown pelican to "threatened" status, yet still recognizing the vulnerability of brown pelicans to the south.

Please feel free to contact me if you need further clarification or assistance.

Sincerely,

THE PACIFIC SEABIRD GROUP

Lora L. Leschner Chair

cc: Executive Council
USFWS, Endangered Species Office, Portland
USFWS, Endangered Species Office, Sacramento
California Department of Fish and Game, Nongame Office